

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Drouet et al.
Serial No.: 10/747,607
Filed: December 29, 2003
For: Method and System for Obtaining Data Through an IP Transmission
Network by Using an Optimized Domain Name Server
Dkt. No.: FR920030014US1
Conf. No.: 6493
Examiner: Nguyen, V.
Art Unit: 2152

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Commissioner for Patents
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BRIEF OF APPELLANTS

This is an appeal from the Final Rejection dated December 17, 2007, rejecting claims 1, 2 and 4. This Brief is accompanied by the requisite fee set forth in 37 C.F.R. 1.17 (c).

REAL PARTY IN INTEREST

International Business Machines Corporation is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

10/747,607

STATUS OF CLAIMS

As filed, this case included claims 1-4. Claims 1, 2 and 4 remain pending, stand rejected, and form the basis of this appeal.

STATUS OF AMENDMENTS

An After-Final Request for Reconsideration, filed on February 13, 2008 in response to the Final Action dated December 17, 2007, did not result in the allowance of the claims.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention provides a data transmission system (FIG. 1) as set forth in independent claim 1, comprising at least a data transmission network (internet 12, FIG. 1; page 4, lines 24-25) based upon an IP protocol, at least a content server (content server 14, FIG. 1; page 4, lines 24-32) for providing data requested by a user (user 10, FIG. 1) connected to the network, a plurality of proxies (proxies 16, 18, FIG. 1; page 4, lines 25-27) having a cache function, each proxy capable of having stored the requested data, one of the proxies comprising a user proxy which receives any request for data from the user (page 5, lines 1-6; page 5, lines 19-22), and a domain name server (domain name server 20, FIG. 1; page 4, lines 13-20) for converting a server name (page 5, lines 25-27) provided by the user to the user proxy into an IP address of the content server. The domain name server includes a table (FIG. 2; page 5, lines 21-16) for providing an IP address of a proxy amongst the plurality of proxies capable of having stored the requested data, the table providing the proxy IP address to the user proxy (step 38, FIG. 3, page 6, lines 29-31), which provides the request (page 6, lines 31-33) for data to the proxy storing the requested data without requesting the data from

the content server.

The present invention further provides a method as set forth in independent claim 2 for obtaining data in an optimized way in a data transmission system (FIG. 1) comprising at least a data transmission network (internet 12, FIG. 1; page 4, lines 24-25) based upon an IP protocol, at least a content server (content server 14, FIG. 1; page 4, lines 24-32) for providing data requested by a user (user 10, FIG. 1) connected to the network, a plurality of proxies (proxies 16, 18, FIG. 1; page 4, lines 25-27) having a cache function, each proxy capable of having stored the requested data, one of the proxies comprising a user proxy (page 5, lines 1-6; page 5, lines 19-22) which receives any request for data from the user, and a domain name server (domain name server 20, FIG. 1; page 4, lines 13-20) for converting a server name provided by the user to the user proxy into an IP address of the content server. The method includes the steps of: a) determining if a table (FIG. 2; page 5, lines 21-16; step 32, FIG. 3; page 6, lines 22-24) stored in the domain name server contains an entry corresponding to the server name provided by the user to the user proxy; b) determining, when there is such an entry in the table, whether the entry includes an address of a proxy amongst the plurality of proxies (step 34, FIG. 3; page 6, lines 24-26); c) returning the proxy IP address to the user proxy if such a proxy IP address is included in the entry corresponding to the server name (step 38, FIG. 3; page 6, lines 29-31); and d) sending the user request from the user proxy to the proxy IP address included in the entry (page 6, lines 31-33).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- (1) Whether claim 1 is unpatentable under 35 U.S.C. §103(a) over Calo et al. (U.S. Patent No. 7,127,492), hereafter “Calo,” in view of Ebata et al. (U.S. Patent No. 6,513,061), hereafter “Ebata.”

(2) Whether claims 2 and 4 are unpatentable under 35 U.S.C. 103(a) over Calo in view of Li et al. (U.S. Patent No. 6,854,018), hereafter "Li."

ARGUMENT

(1) Rejection of claim 1 under 35 U.S.C. §103(a) over Calo in view of Ebata.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143.

The rejection of claim 1 under 35 U.S.C. 103(a) over Calo in view of Ebata is defective because Calo and Ebata, taken alone or in combination, fail to disclose each and every feature of the claim.

In accordance with independent claim 1, the user proxy not only receives any request for data from the user, but also receives, from the table, a proxy address of the proxy server that stores the requested data, and subsequently provides the request for data to the proxy server in which the requested data is stored. Calo and Ebata, taken

alone or in any combination, fail to teach or suggest such a “user proxy.”

In the Response to Arguments section of the above-referenced Final Office Action, the Examiner asserts that “Ebara teaches the user proxy receives request for data from the user ... and also receives, from the table, a proxy address of the proxy server that stores the requested data.” This is incorrect. In Ebara, service proxy server (SPS) information stored in the SPS information list 625 (which the Examiner has equated with the claimed “table”) is used by the dynamic domain name system (DDNS) server 6 to select the most approximate SPS 2, 7 to the network computer (NC) 3. The DDNS server 6 then sends back a response message with the IP address of the selected SPS 2, 7 set thereon **to the NC 3** (i.e., not to the claimed “user proxy”). See, e.g., Ebara, col. 11, line 10 - col. 12, line 10.

(2) Rejection of claims 2 and 4 under 35 U.S.C. 103(a) over Calo in view of Li.

The rejection of claims 2 and 4 under 35 U.S.C. 103(a) over Calo in view of Li is defective because Calo and Li, taken alone or in combination, fail to disclose each and every feature of the claim.

In accordance with independent claim 2, the user proxy not only receives any request for data from the user, but also receives, from the table, a proxy address of the proxy server that stores the requested data, and subsequently provides the request for data to the proxy server in which the requested data is stored. Calo and Li, taken alone or in any combination, fail to teach or suggest such a “user proxy.”

Li also fails to disclose, *inter alia*, the claimed “table.” Indeed, Li is directed to techniques for improving the operation of a proxy server, and thus has no need for, nor discloses, the claimed “table for providing an IP address of a proxy amongst the plurality of proxies capable of having stored the requested data, the table providing the proxy IP address to the user proxy.” The tables 70, 74, and 76 of Li, which the Examiner has equated with the claimed “table,” do not provide the claimed functionality of “providing an IP address of a proxy amongst the plurality of proxies capable of having stored the requested data, the table providing the proxy IP address to the user proxy.”

CONCLUSION

Accordingly, Appellants submit that claims 1, 2 and 4 are allowable because, *inter alia*: A) Calo and Ebata, taken alone or in combination, fail to teach or suggest each and every feature of claim 1 as required by 35 U.S.C. 103(a); and B) Calo and Li, taken alone or in combination, fail to teach or suggest each and every feature of claims 2 and 4 as required by 35 U.S.C. 103(a).

Respectfully submitted,

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CLAIMS APPENDIX

1. A data transmission system comprising at least a data transmission network based upon an IP protocol, at least a content server for providing data requested by a user connected to the network, a plurality of proxies having a cache function, each proxy capable of having stored the requested data, one of the proxies comprising a user proxy which receives any request for data from the user, and a domain name server for converting a server name provided by the user to the user proxy into an IP address of the content server;

wherein the domain name server includes a table for providing an IP address of a proxy amongst the plurality of proxies capable of having stored the requested data, the table providing the proxy IP address to the user proxy, which provides the request for data to the proxy storing the requested data without requesting the data from the content server.

2. A method for obtaining data in an optimized way in a data transmission system comprising at least a data transmission network based upon an IP protocol, at least a content server for providing data requested by a user connected to the network, a plurality of proxies having a cache function, each proxy capable of having stored the requested data, one of the proxies comprising a user proxy which receives any request for data from the user, and a domain name server for converting a server name provided by the user to the user proxy into an IP address of the content server;

the method comprising:

a) determining if a table stored in the domain name server contains an entry corresponding to the server name provided by the user to the user proxy,

b) determining, when there is such an entry in the table, whether the entry includes an address of a proxy amongst the plurality of proxies,

c) returning the proxy IP address to the user proxy if such a proxy IP address is included in the entry corresponding to the server name, and

d) sending the user request from the user proxy to the proxy IP address included in the entry.

4. Method according to claim 2, further comprising:

determining whether the user proxy is a known proxy, the user proxy being a known proxy when it is contained in a list of proxies provided to the domain name server at an initialization of the system.

EVIDENCE APPENDIX

No evidence has been submitted.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.